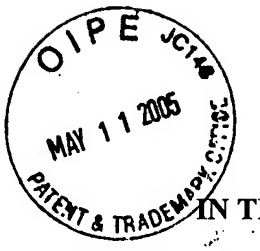

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S) : P. Simmons, et al.
SERIAL NO. : 10/030,411
FILED : April 11, 2002
FOR : Mesenchymal Precursor Cell
GROUP ART UNIT : 1625
Examiner : Belyavskiyi, Michail A.

Mail Stop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia, 22313-1450

Amendment of Claims in Application

Prior to examining this application, please amend the claims as follows:

In the Claims:

Cancel claims 1-24, 29-30, 32-33, 35-39 and 46 and amend the remaining claims as follows:

1-24. Cancelled.

25. (Currently amended) An enriched cell population wherein at least 1% of the cells are ~~mesenchymal precursor cells that are colony forming~~ capable of giving rise to colony forming units-fibroblast (CFU-F).

26. (Curently amended) An enriched cell population as in claim 25 wherein the at least 1% of cells carry at least two markers selected from [a] the group of surface markers specific for mesenchymal precursor cells [including] consisting of LFA-3, THY-1, antigen identified by STRO-1, VCAM-1, ICAM-1, PECAM-1, P-selectin, L-selectin, CD49b/CD29, CD49c/CD29, CD49d/CD29, CD29, CD18, CD61, 6-19, thrombomodulin, CD10, CD13, integrin beta, STRO-2, CD146, and SCF or any combination thereof.

27. (Currently amended) An enriched cell population as in claim 26 wherein the at least 1% of cells carry the antigen identified by STRO-1 and VCAM-1.

28. (Currently amended) An enriched cell population as in claim 25 wherein at least 5% of the cells are ~~mesenchymal precursor cells that are colony forming~~ capable of giving rise to colony forming units-fibroblast (CFU-F).

Claims 29-30. Cancelled .

31. (Currently amended) An enriched cell population as in claim 25 wherein at least 10% of the cells are ~~mesenchymal precursor cells that are colony forming~~ capable of giving rise to colony forming units-fibroblast (CFU-F).

Claims 32-33. Cancelled.

34. (Currently amended) An enriched cell population as in claim 25 wherein at least 40% of the cells are [mesenchymal precursor cells that are colony forming] capable of giving rise to colony forming units-fibroblast (CFU-F).

Claims 35-39. Cancelled.

40. (Currently amended) An enriched population of cells as in ~~either of~~ claim 25 ~~or claim 37~~ wherein a proportion of the cells are capable of differentiation into at least two committed cell types selected from the group including adipose, areolar, osseous, cartilaginous, elastic and fibrous connective tissue.

41. (Currently amended) An enriched population of cells as in ~~either of~~ claim 25 ~~or claim 37~~ wherein the enriched population is suitable for seeding onto a vehicle for implantation to assist in bone growth.

42. (Currently amended) An enriched population of cells as in ~~either of~~ claim 25 ~~or claim 37~~ wherein the enriched population has an exogenous nucleic acid transformed in to it so that the population may be introduced into the body of a patient to treat a disease or condition.

43. (Currently amended) An enriched population of cells as in ~~either of~~ claim 25 ~~or claim 37~~ wherein the enriched population has an exogenous nucleic acid that expresses a therapeutic agent transformed in to it so that the population may be introduced into the body of a patient to release the therapeutic agent.

44. (Currently amended) An enriched population of cells as in ~~either of~~ claim 25 ~~or claim 37~~ wherein the enriched population is used to augment bone marrow transplantation.

45. (Original) A composition including the enriched population of claim 25.

46. Cancelled.

47. (Currently amended) A composition as in ~~either of~~ claim 45 ~~or 46~~ wherein the composition is preadsorbed onto ceramic vehicles that are precoated with fibronectin and are suitable for implantation to augment bone marrow transplantation.

48. (Currently amended) A composition as in ~~either of~~ claim 45 ~~or 46~~ wherein the composition is suitable for use in augmenting bone marrow transplantation.

49. (Original) A composition as in claim 48 wherein the composition also includes

haemopoietic cells.

50. (Currently amended) A composition as in ~~either of~~ claim 45 ~~or 46~~ wherein the population has an exogenous nucleic acid transformed in to it so that the composition may be introduced into the body of a patient to treat a disease or condition.

51. (Currently amended) A composition as in ~~either of~~ claim 45 ~~or 46~~ wherein the population has an exogenous nucleic acid that expresses a therapeutic agent transformed in to it so that the composition may be introduced into the body of a patient to release the therapeutic agent.

52. (New) An enriched cell population as in claim 25 wherein the at least 1% of cells are mesenchymal precursor cells that are positive for one or more markers selected from the group consisting of STRO-1^{bright}, VCAM-1^{bright}, THY-1^{bright}, $CD146^{bright}$ and STRO-2^{bright}.

53. (New) An enriched cell population as in claim 52 wherein the STRO-1^{bright} cells carry a high copy number of an antigen identified by STRO-1.

54. (New) An enriched cell population as in claim 52 wherein the VCAM-1^{bright} cells carry a high copy number of an antigen identified by VCAM-1.

55. (New) An enriched cell population as in claim 52 wherein the THY-1^{bright} cells carry a high copy number of an antigen identified by THY-1.

56. (New) An enriched cell population as in claim 52 wherein the $CD146^{bright}$ cells carry a high copy number of an antigen identified by CD146.

57. (New) An enriched cell population as in claim 52 wherein the STRO-2^{bright} cells carry a high copy number of an antigen identified by STRO-2.

58. (New) An enriched cell population as in claim 25 wherein the STRO-1^{bright} cells are negative for at least one marker selected from the group consisting of CBFA-1, collagen type II, PPARγ2, and glycophorin A.